to drainage, or distal pancreatic ductal stricture. When considering the 12 patients with a clinical diagnosis of cystic neoplasm, 8 patients had frozen sections intra-operatively and 4 frozen sections were positive cystic neoplasm. The remaining frozen sections did not specify a diagnosis and only showed normal epithelium or negative for malignancy. Eleven of the 12 patients had final pathology demonstrating cystic neoplasm and one patient had a final diagnosis of pseudocyst. All patients with a preoperative diagnosis of cystic neoplasm underwent distal pancreatectomy or Whipple procedure. The false-negative rate of frozen section in the management of cystic lesions of the pancreas was 17%. When comparing frozen section to final pathology, the sensitivity was 64% and specificity was 88%. CONCLUSIONS: Preoperative diagnosis seems to influence operative management to a greater extent than frozen section pathology. Therefore, routine frozen section analysis may not be required for all pseudocysts.

1370 *BIFID PANCREAS PRESENTING AS RECURRENT PANCREATITIS IN A 17-YEAR-OLD FEMALE: A CASE REPORT AND LITERATURE REVIEW*

James R Manazer, Jimmy J Pak, James Bordley and Randall S Zuckerman, Mary Imogene Bassett Hospital, Cooperstown, NY, USA

The purpose of this paper is to describe a case of bifid tail of the pancreas and review the current literature regarding this rare problem. Congenital pancreatic abnormalities are uncommon and symptoms related to these abnormalities are exceedingly rare. Bifid pancreas (BP) is a rare abnormality which results from altered development of a bilobed ventral pancreatic bud. This development can result in ductal abnormalities, some of which can lead to chronic abdominal pain and pancreatitis. This case report describes a 17-year-old non-alcoholic female without gallstones who presented with multiple episodes of recurrent pancreatitis. The patient underwent endoscopic retrograde cholangiopancreatography (ERCP) as part of her diagnostic work-up and it failed to reveal an anatomic abnormality. Serial computed tomography (CT) scans revealed a cystic lesion in the pancreatic tail, which prompted exploration and a distal pancreatectomy. Pathologic examination revealed a bifid pancreatic tail. The main tail showed chronic pancreatitis with ductal ectasia. The main pancreatic duct traveled out a bifid limb that ended in a duplication cyst containing gastric and esophageal mucosa. A review of the literature reveals only sporadic case reports regarding bifid pancreas. Given the rarity of this abnormality, management is not clearly defined. Distal ductal abnormalities associated with BP can be difficult or impossible to diagnosis with ERCP and CT scanning. Untreated symptomatic BP is likely to progress to chronic pancreatitis. Therefore pancreatic exploration and possible resection may be indicated.

1371 *PANCREATICODUODENECTOMY FOR A JEJUNAL GASTROINTESTINAL STROMAL TUMOUR (GIST)*

Rafael O Albagli Sr, Marciano Anghinoni Sr, Jorge Mali Jr Sr, Gustavo Pierro Sr, Gustavo Stoduto Sr, Rodrigo Santos Lugão Sr, Eduardo Linhares Sr, Carlos Eduardo Santos, Marco Antonio Guimarães Sr, Antonio Kneipp Castro and Daniel De Matos, INCA, Rio de Janeiro, Brazil

BACKGROUND: Gastrointestinal stromal tumours (GISTs) are the most common mesenchymal tumours of the gastrointestinal tract. Recent studies have shown that the tumours are immunohistochemically positive for c-kit (CD117) and CD34. They constitute 5% of all sarcomas and occur predominantly in middle-aged and old persons. GISTs are not always identifiable as benign or malignant, and many are reported as low malignancy potential tumours. Surgical resection is the treatment of choice. CASE REPORT: We present a case of a 57-year-old woman submitted to a exploratory laparotomy in December 2001 for an intra-abdominal tumour suspected to be a colonic stromal tumour. During operation, a jejunal tumour was found and it infiltrated right colon and the second portion of duodenum. There was also a liver implant in segment III. We performed an enterectony with pancreaticoduodenectomy ('en bloc' resection) and liver implant resection. Initially the histopathology showed a stromal tumour with low grade differentiation. Fifteen months later the patient presented with hepatic recurrence (diffuse nodes). An immunohistochemical study (not available at the time of surgery) was performed, being positive for c-kit. Treatment with Imatinib (Gleevec®) 400 mg daily was initiated. At 6 moths of treatment the patient had a significantly symptomatic benefit with improvement in perfomance status. Radiologic response also was observed with significant reduction in node diameters. The patient is still receiving Imatinib with periodical evaluations. CONCLUSION: This is a rare tumour presentation treated with a radical uncommon surgery (pancreaticoduodenectomy) that had a hepatic recurrence and was initially considered untreatable. After the immunohistochemistry findings showing a GIST diagnosis and treatment with Imatinib, the patient had clinical and radiological improvment.

1372 *HEMOSUCCUS PANCREATICUS: AN UNUSUAL CASE OF UPPER GASTROINTESTINAL BLEEDING*

Matthew D Vrees, Dionisios Vrochides, Paul Akerman, Basam Aswad and David A Iannitti, Brown Medical School, Providence, RI, USA

The patient is a 78 y.o female who was followed for a chronic UGI bleed for 2 years requiring multiple hospitalizations and a total of 40 units of blood. Her first presentation was painless hematemesis. Subsequently she was admitted for either hematemesis and fatigue associated with anemia along with chronic abdominal pain. Prior to her referral she had multiple EGDs as well as CT scans of the abdomen which were normal. The patient also underwent capsule endoscopy, which did not reveal the source of bleeding. During an acute upper GI bleed, an EGD was repeated with normal findings of the esophagus, stomach and duodenum. The major papilla was identified and small amounts of blood dripping from the papilla suggested a biliary or pancreatic source of the bleeding (all photos available). ERCP demonstrated that the biliary system appeared normal but upon injection of contrast into the pancreatic duct, it was eliminated through a vascular structure. With a presumptive diagnosis of a hemosuccus pancreaticus from a fistula to a neighboring vessel selective angiography was performed for diagnosis and possible selective embolization. The fistula could not be redemonstrated by angiography nor were any aneurysms or psuedoanuerysms appreciated. High suspicion based on the ERCP prompted plans for elective exploration and distal pancreatectomy. Two days prior to her planned exploration she re-presented to the emergency room with an UGI bleed. After rescuscitation she was taken to the OR and explored. Her pancreas was fibrotic and adherent to the retroperitoneum, eliminating plans for splenic preservation. The splenic artery was ligated at its celiac origin and a distal pancreatectomy-splenectomy was performed to the pancreatic neck proximally. The resected pancreas was opened along the length of the pancreatic duct. Organized clot and a splenic artery to pancreatic duct fistula were clearly demonstrated. Interestingly, unlike other reported cases of hemosuccus pancreaticus, the fistula was not associated with a splenic artery psuedoaneurysm. The patient recovered from surgery and was discharged home on postoperative day 5. She has had no subsequent bleeding.

1373 *ROLE OF CA 19-9 ASSAY IN THE ASSESSMENT OF SUSPECTED HEPATOPANCREATOBILIARY MALIGNANCY*

Ross P Coggins, Abdo Sarrour, Hemant Vadeyar and David Sherlock, North Manchester General Hospital, Manchester, UK

BACKGROUND: CA 19-9 is widely used in the assessment of hepato-pancreato-biliary (HPB) malignancy, although false-positive and -negative results are common, particularly in the presence of jaundice. This study examines the diagnostic value of CA 19-9 assay in patients with suspected malignancy. METHODS: All requests for CA 19-9 assay received at the authors' institution between January 2002 and June 2003 were analysed. Using computerized biochemistry, radiology and histopathology records, the role of CA 19-9 in detecting HPB malignancy, particularly in the presence of jaundice, was assessed. RESULTS: 514 requests for CA 19-9 assay were received during the study period. 305 (59.3%) were normal (reference <39 KU/L). 209 assays were reported >39 KU/L (median 210 KU/L, range 40–90,000). 95 (18.5%) patients were significantly jaundiced (bilirubin >50). 91 patients were subsequently diagnosed with HPB malignancy (cholangiocarcinoma, $n = 30$; pancreatic adenocarcinoma, $n = 47$; ampullary adenocarcinoma, $n = 11$; carcinoma of gallbladder, $n = 3$). Additionally, 8 primary liver cancers and 42 metastatic liver cancers were diagnosed. Sensitivity and specificity of elevated CA 19-9 (>39 KU/L) in predicting HPB malignancy were 75.8% and 62.4%, respectively, and were not improved by raising the diagnostic threshold. Using multivariate logistic regression, CA 19-9 level >39 KU/L predicted subsequent diagnosis of HPB cancer (OR 5.2, 95% CI 3.02–8.97, $p < 0.0001$). The presence of significant liver dysfunction (bilirubin >50, alkaline phosphatase >200) had little effect on the predictive value of CA 19-9 (OR 4.53, 95% CI 2.60–7.92, $p < 0.0001$). CA 19-9 was frequently elevated with non-HPB cancer (ovary, stomach), and with benign conditions (pancreatitis, liver abscess, hepatitis). In benign disease, elevated alkaline phosphatase, and not bilirubin, was seen to accurately predict CA 19-9 >39KU/L (OR 8.10, 95% CI 2.72–24.08, $p < 0.0001$). CONCLUSION: CA 19-9 assay is a useful adjunct in the assessment of suspected HPB cancer, but poor sensitivity dictates that it should be used in conjunction with other diagnostic modalities. Cholestasis appears to have little effect on CA 19-9 levels in HPB cancer. Raised ALP, but not bilirubin, was associated with elevated CA 19-9 in benign disease.